

CLAIMS

1. A structure comprising:

a laminate substrate having a top surface for receiving a semiconductor die;

an antenna element situated on said top surface of said laminate substrate, said

5 antenna element coupled to a laminate substrate bond pad;

a bonding wire providing an electrical connection between said laminate substrate
bond pad and a semiconductor die bond pad.

2. The structure of claim 1 wherein said antenna element is coupled to said
10 laminate substrate bond pad by a trace on said top surface of said laminate substrate.

3. The structure of claim 1 wherein an input impedance of said antenna element
matches an output impedance at said semiconductor die bond pad.

15 4. The structure of claim 1 wherein said antenna element comprises copper.

5. The structure of claim 1 wherein said antenna element comprises a square
metal pad.

20 6. The structure of claim 1 wherein said antenna element is selected from the
group consisting of a slot line pattern, a meander line pattern, and a patch pattern.

7. The structure of claim 1 wherein said laminate substrate comprises an organic laminate material.

8. The structure of claim 1 wherein said laminate substrate comprises a ceramic
5 laminate material.

9. The structure of claim 1 further comprising a capacitor, said capacitor coupled to said antenna element.

10. The structure of claim 9 wherein said capacitor is an embedded capacitor.

A1 SUB 7

11. A structure comprising:

- a laminate substrate having a top surface;
- a first semiconductor die and a second semiconductor die attached to said top surface of said laminate substrate;
- a first antenna element situated on said top surface of said laminate substrate, said first antenna element coupled to a first laminate substrate bond pad;
- a second antenna element situated on said top surface of said laminate substrate, said second antenna element coupled to a second laminate substrate bond pad;
- 20 a first bonding wire providing an electrical connection between said first laminate substrate bond pad and a semiconductor die bond pad on said first semiconductor die.

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A17

a second bonding wire providing an electrical connection between said second laminate substrate bond pad and a semiconductor die bond pad on said second semiconductor die.

5 12. The structure of claim 11 wherein said first antenna element is coupled to said first laminate substrate bond pad by a trace on said top surface of said laminate substrate.

13. The structure of claim 11 wherein an input impedance of said first antenna element matches an output impedance at said semiconductor die bond pad on said first semiconductor die.

14. The structure of claim 11 wherein said second antenna element is coupled to said second laminate substrate bond pad by a trace on said top surface of said laminate substrate.

15. The structure of claim 11 wherein an input impedance of said second antenna element matches an output impedance at said semiconductor die bond pad on said second semiconductor die.

20 16. The structure of claim 11 wherein said first antenna element comprises copper.

17. The structure of claim 11 wherein said first antenna element is selected from the group consisting of a slot line pattern, a meander line pattern, and a patch pattern.

18. The structure of claim 11 wherein said second antenna element is selected
5 from the group consisting of a slot line pattern, a meander line pattern, and a patch pattern.

19. The structure of claim 11 wherein said laminate substrate comprises an organic laminate material.

20. The structure of claim 11 further comprising a capacitor, said capacitor coupled to said first antenna element.